

REMARKS

Formal Matters

Claims 7, 9-14, 16 and 18-24 are pending.

Claims 7, 9-14, 16 and 18-20 were examined and rejected.

Claims 22-24 are new. Support for new claims 22-24 may be found in claims 7, 16 and 20 respectively. Support for probes attached to a substrate may be found at Fig. 3A and page 9, lines 16-17.

Applicants respectfully request reconsideration of the application in view of the remarks made herein.

Specification

The specification is objected to because certain documents have been assertedly improperly incorporated by reference. Specifically, the Office asserts that the incorporations by reference set forth in page 9, lines 9-10 and page 14, last paragraph, are improper because they do not identify with any detail the subject matter that is incorporated. The Applicants respectfully traverse this rejection.

The Office cites case law to support its position. However, the Applicants respectfully submit that the question addressed in each of the cited cases was whether a patent application had actually attempted to make *any* incorporation by reference, rather than whether a patent application identify with any specific detail the subject matter that is incorporated.¹ Accordingly, the cited cases are not relevant to the case at hand.

In view of the foregoing discussion, the Applicants respectfully submit that the incorporations by reference in question meet the requirements of MPEP § 608.01(p). Accordingly, this objection may be withdrawn.

¹ For example, in *In re Seversky* (the case cited in *Advanced Display*) the Appellant attempted to incorporate by reference teachings of interest into an application from a grandparent application. However, the application in question was totally devoid of "incorporation-by-reference" language - a situation wholly different from the instant application.

Rejection under 35 U.S.C. § 102

Claims 7, 9-14, 16 and 18-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Meade (USPN 5,952,172). Specifically, the Office asserts that Mead discloses a hybridization method that anticipates the claims. The Applicants respectfully traverse the rejection.

The basis of the invention is that metal ions can be used to “dope” a transition metal ligand-labeled nucleic acid complex to make the complex conductive and capable of producing a detectable signal. Accordingly, each of the rejected claims recites a metal ion as a distinct element. For example: element (b) of claim 7 recites adding a metal ion to an initial complex to produce an electrically conductive complex; claim 16 recites *independently* adding together a probe having an attached transition metal-ligand complex, a target capable of hybridizing to the probe, and a metal ion to produce an electrically-conductive complex; and element (b) of claim 20 recites adding a metal ion to the initial complex to produce a final electrically conductive complex. In claims 7 and 20, the metal ion is added *after* the formation of an initial complex of a target and a probe labeled with a transition metal ligand complex.

Meade’s disclosure relates to methods of labeling nucleic acids with electron transfer agents such as transition metal ligand complexes. Meade discusses using nucleic acids labeled with an electron transfer agent to generate a light signal. However, like Hammershoi cited in the previous Office Action, Mead fails to disclose any method that employs metal ions. In fact, the words “ion” and “ions” are not found at any point in Meade’s disclosure.

The Office points towards Meade’s col. 9, lines 45-54, to provide a teaching of metal ions. However, the compounds described in Meade’s col. 9, lines 45-54 are, in fact, transition metal ligand complexes, not metal ions as the Office asserts.

Further, Meade does not disclose that the compounds described in col. 9, lines 45-54 could be added to an initial complex to produce a final electrically conductive complex, as required by claims 22 and 31.

In sum, Meade fails to disclose a key element of the claimed invention: metal ions. Accordingly, Meade cannot anticipate the rejected claims.

In view of the foregoing discussion, withdrawal of this rejection is respectfully requested.

CONCLUSION

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone Tim Joyce at (650) 485 4310.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,
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